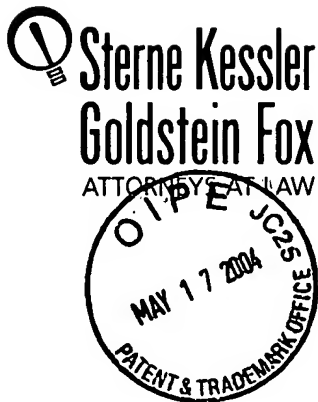


IPW



Robert Greene Sterne
Edward J. Kessler
Jorge A. Goldstein
David K.S. Cormwell
Robert W. Esmond
Tracy-Gene G. Durkin
Michele A. Cimbala
Michael B. Ray
Robert E. Sokohl
Eric K. Steffe
Michael Q. Lee
Steven R. Ludwig
John M. Covert
Linda E. Alcorn
Robert C. Millonig
Donald J. Featherstone
Lawrence B. Bugalsky
Michael V. Messinger

Judith U. Kim
Timothy J. Shea, Jr.
Patrick E. Garrett
Heidi L. Kraus
Edward W. Yee
Albert L. Ferro
Donald R. Banowitz
Peter A. Jackman
Teresa U. Medler
Jeffrey S. Weaver
Kendrick P. Patterson
Vincent L. Capuano
Eldora Ellison Floyd
Thomas C. Fiala
Brian J. De' Buono
Virgil Lee Beaton
Kimberly N. Reddick
Theodore A. Wood

Elizabeth J. Haanes
Joseph S. Ostroff
Frank R. Cottingham
Christine M. Lhuiller
Rae Lynn Prengaman
Jane Shershenovich
George S. Bardmesser
Daniel A. Klein
Jason D. Eisenberg
Michael D. Specht
Andrea J. Kamage
Tracy L. Muller
LuAnne M. DeSantis
John J. Figueroa
Ann E. Summerfield
Tiera S. Coston
Aric W. Ledford
Jessica L. Parezo

Timothy A. Doyle
Gaby L. Longworth
Nicole D. Dretar
Ted J. Ebersole
Jyoti C. Iyer
Registered Patent Agents*
Karen R. Markowitz
Nancy J. Leith
Helene C. Carlson
Matthew J. Dowd
Aaron L. Schwartz
Katrina Y. Pei Quach
Bryan L. Skelton
Robert A. Schwartzman
Teresa A. Colella
Jeffrey S. Lundgren
Victoria S. Rutherford

Eric D. Hayes
Michelle K. Holoubek
Robert H. DeSelms
Simon J. Elliott
Julie A. Heider
Mita Mukherjee
Scott M. Woodhouse

Of Counsel
Kenneth C. Bass III
Evan R. Smith
Marvin C. Guthrie

*Admitted only in Maryland
*Admitted only in Virginia
*Practice Limited to Federal Agencies

May 17, 2004

WRITER'S DIRECT NUMBER:
(202) 772-8645
INTERNET ADDRESS:
JASONE@SKGF.COM

Commissioner for Patents
PO Box 1450
Alexandria, VA 22313-1450

Art Unit 2832

Re: U.S. Utility Patent Application
Application No. 10/684,587; Filed: October 15, 2003
For: **Micro Magnetic Non-Latching Switches and Methods of Making Same**
Inventors: Shen *et al.*
Our Ref: 2040.0440000

Sir:

Transmitted herewith for appropriate action are the following documents:

1. Information Disclosure Statement;
2. Form PTO-1449 (9 pages) listing the cited documents;
3. Copies of the (73) cited documents; and
4. Return postcard.

It is respectfully requested that the attached postcard be stamped with the date of filing of these documents, and that it be returned to our courier. In the event that extensions of time are necessary to prevent abandonment of this patent application, then such extensions of time are hereby petitioned.

The U.S. Patent and Trademark Office is hereby authorized to charge any fee deficiency, or credit any overpayment, to our Deposit Account No. 19-0036.

Respectfully submitted,

STERNE, KESSLER, GOLDSTEIN & FOX P.L.L.C.

Jason D. Eisenberg
Attorney for Applicants
Registration No. 43,447

BEST AVAILABLE COPY



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of:

Shen *et al.*

Appl. No.: 10/684,587

Filed: October 15, 2003

For: **Micro Magnetic Non-Latching
Switches and Methods of Making
Same**

Confirmation No.: 1752

Art Unit: 2832

Examiner: B. Rojas

Atty. Docket: 2040.0440000

Information Disclosure Statement

Commissioner for Patents
PO Box 1450
Alexandria, VA 22313-1450

Sir:

Listed on accompanying Form PTO-1449 are documents that may be considered material to the examination of this application, in compliance with the duty of disclosure requirements of 37 C.F.R. §§ 1.56, 1.97 and 1.98.

Where the publication date of a listed document does not provide a month of publication, the year of publication of the listed document is sufficiently earlier than the effective U.S. filing date and any foreign priority date so that the month of publication is not in issue. Applicants have listed publication dates on the attached PTO-1449 based on information presently available to the undersigned. However, the listed publication dates should not be construed as an admission that the information was actually published on the date indicated.

Applicants reserve the right to establish the patentability of the claimed invention over any of the information provided herewith, and/or to prove that this information may

not be prior art, and/or to prove that this information may not be enabling for the teachings purportedly offered.

This statement should not be construed as a representation that a search has been made, or that information more material to the examination of the present patent application does not exist. The Examiner is specifically requested not to rely solely on the material submitted herewith.

Applicants have checked the appropriate boxes below.

- ☐ 1. Statement under 37 C.F.R. 1.704(d). Each item of information contained in this Information Disclosure Statement was cited in a communication from a foreign patent office in a counterpart application and this communication was not received by any individual designated in 37 C.F.R. § 1.56(c) more than thirty days prior to the filing of this information disclosure statement.
- ☒ 2. Filing under 37 C.F.R. § 1.97(b). This Information Disclosure Statement is being filed within three months of the date of filing of a national application other than a continued prosecution application (CPA), OR within three months of the date of entry of the national stage as set forth in 37 C.F.R. § 1.491 in an international application, OR before the mailing date of a first Office Action on the merits OR before the mailing of a first Office Action after the filing of a request for continued examination under 37 C.F.R. § 1.114. No statement or fee is required.
- ☐ 3. Filing under 37 C.F.R. § 1.97(c). This Information Disclosure Statement is being filed more than three months after the U.S. filing date AND after the mailing date of the first Office Action on the merits, but before the mailing date of a Final

Rejection, or Notice of Allowance, or an action that otherwise closes prosecution in the application.

- ☐ a. Statement under 37 C.F.R. § 1.97(e)(1). I hereby state that each item of information contained in this Information Disclosure Statement was first cited in any communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of this Information Disclosure Statement. 37 C.F.R. § 1.97(e)(1).
- ☐ b. Statement under 37 C.F.R. § 1.97(e)(2). I hereby state that no item of information in this Information Disclosure Statement was cited in a communication from a foreign patent office in a counterpart foreign application and, to my knowledge after making reasonable inquiry, was known to any individual designated in 37 C.F.R. § 1.56(c) more than three months prior to the filing of this Information Disclosure Statement. 37 C.F.R. § 1.97(e)(2).
- ☐ c. Attached is our PTO-2038 Credit Card Payment Form in the amount of \$_____ in payment of the fee under 37 C.F.R. § 1.17(p).
- ☐ 4. Filing under 37 C.F.R. § 1.97(d) This Information Disclosure Statement is being filed more than three months after the U.S. filing date and after the mailing date of a Final Rejection or Notice of Allowance, but before payment of the Issue Fee. Enclosed find our PTO-2038 Credit Card Payment Form in the amount of \$_____ in payment of the fee under 37 C.F.R. § 1.17(p); in addition:

- ☐ a. Statement under 37 C.F.R. § 1.97(e)(1). I hereby state that each item of information contained in this Information Disclosure Statement was cited in a communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of this Information Disclosure Statement. 37 C.F.R. § 1.97(e)(1).
- ☐ b. Statement under 37 C.F.R. § 1.97(e)(2). I hereby state that no item of information in this Information Disclosure Statement was cited in a communication from a foreign patent office in a counterpart foreign application and, to my knowledge after making reasonable inquiry, was known to any individual designated in 37 C.F.R. § 1.56(c) more than three months prior to the filing of this Information Disclosure Statement. 37 C.F.R. § 1.97(e)(2).
- ☐ 5. The document(s) was/were cited in a search report by a foreign patent office in a counterpart foreign application. Submission of an English language version of the search report that indicates the degree of relevance found by the foreign office is provided in satisfaction of the requirement for a concise explanation of relevance. 1138 OG 37, 38.
- ☐ 6. A concise explanation of the relevance of the non-English language document(s) appears below:
- ☒ 7. Copies of the documents are submitted herewith.
- ☐ 8. Copies of the documents were cited by or submitted to the Office in an IDS that complies with 37 C.F.R. § 1.98(a)-(c) in Application No. _____, filed

_____, which is relied upon for an earlier filing date under 35 U.S.C.

§ 120. Thus, copies of these documents are not attached. 37 C.F.R. § 1.98(d).

☐ 9. No copies of U.S. patents and patent application publications cited on the attached Form PTO-1449 are submitted in accordance with 1276 OG 55 because this application was filed after June 30, 2003.

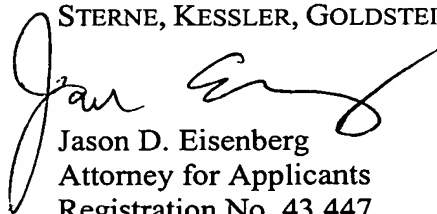
☐ 10. It is expected that the examiner will review the prosecution and cited art in the parent application no(s). _____ in accordance with MPEP 2001.06(b), and indicate in the next communication from the office that the art cited in the earlier prosecution history has been reviewed in connection with the present application.

It is respectfully requested that the Examiner initial and return a copy of the enclosed PTO-1449, and indicate in the official file wrapper of this patent application that the documents have been considered.

The U.S. Patent and Trademark Office is hereby authorized to charge any fee deficiency, or credit any overpayment, to our Deposit Account No. 19-0036.

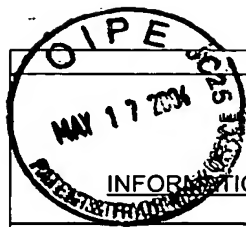
Respectfully submitted,

STERNE, KESSLER, GOLDSTEIN & FOX P.L.L.C.


Jason D. Eisenberg
Attorney for Applicants
Registration No. 43,447

Date: 5/17/04

1100 New York Avenue, N.W.
Washington, D.C. 20005-3934
(202) 371-2600



FORM PTO-1449

INFORMATION DISCLOSURE STATEMENT

ATTY. DOCKET NO.

2040.0440000

APPLICATION NO.

10/684,587

FIRST NAMED INVENTOR

Jun Shen

FILING DATE

October 15, 2003

ART UNIT

2832

U.S. PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUB-CLASS	FILING DATE
	AA1	4,065,677	12/27/1977	Micheron et al.			12/23/1975
	AB1	4,461,968	07/24/1984	Kolm et al.			01/11/1982
	AC1	4,496,211	01/29/1985	Daniel			12/05/1980
	AD1	4,570,139	02/11/1986	Kroll			12/14/1984
	AE1	5,016,978	05/21/1991	Fargette et al.			05/21/1991
	AF1	5,048,912	09/17/1991	Kunikane et al.			03/09/1989
	AG1	5,398,011	03/14/1995	Kimura et al.			05/17/1993
	AH1	5,472,539	12/05/1995	Saia et al.			06/06/1994
	AI1	5,475,353	12/12/1995	Roshen et al.			09/30/1994
	AJ1	5,557,132	09/17/1996	Takahashi			12/06/1994
	AK1	5,629,918	05/13/1997	Ho et al.			01/20/1995

FOREIGN PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB-CLASS	TRANSLATION
	AL1	DE 10031569 A1	02/01/2001	Germany			Yes No
	AM1	DE 19820821 C1	12/16/1999	Germany			Yes No
	AN1	EP 0452012 A2 & A3	10/16/1991	Europe			Yes No
	AO1	EP 0685864 A1	12/06/1995	Europe			Yes No
	AP1	EP 0709911 A2 & A3	5/1/1996	Europe			Yes No

OTHER (Including Author, Title, Date, Pertinent Pages, etc.)

	AR	1	Richard P. Feymann, "There's Plenty of Room at the Bottom", December 29, 1959, pp.1-12, Internet Source: http://222.zyvex.com/nanotech/feynman.html .
	AS	1	E. Fullin, J. Gobet, H.A.C. Tilmans, and J. Bergvist, "A New Basic Technology for Magnetic Micro-Actuators", pp. 143-147.
	AT	1	Jack W. Judy and Richard S. Muller "Magnetically Actuated, Addressable Microstructures", September 1997, Journal of Microelectromechanical Systems, Vol. 6, No. 3, September 1997, pp.249-255.

EXAMINER

DATE CONSIDERED

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to Applicant.

FORM PTO-1449

INFORMATION DISCLOSURE STATEMENT

ATTY. DOCKET NO.

2040.0440000

APPLICATION NO.

10/684,587

FIRST NAMED INVENTOR

Jun Shen

FILING DATE

October 15, 2003

ART UNIT

2832

U.S. PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUB-CLASS	FILING DATE
	AA2	5,696,619	12/9/1997	Knipe et al.			02/27/1995
	AB2	5,784,190	07/21/1998	Worley			04/27/1995
	AC2	5,818,316	10/06/1998	Shen et al.			07/15/1997
	AD2	5,838,847	11/17/1998	Pan et al.			10/23/1997
	AE2	5,847,631	12/8/1998	Taylor et al.			09/30/1996
	AF2	5,898,515	04/27/1999	Furlani et al.			11/21/1996
	AG2	5,945,898	08/31/1999	Judy et al.			05/31/1996
	AH2	5,982,554	11/09/1999	Goldstein et al.			12/31/1997
	AI2	6,016,092	01/18/2000	Qiu et al.			08/10/1998
	AJ2	6,016,095	01/18/2000	Herbert			07/06/1998
	AK2	6,028,689	02/22/2000	Michalick et al.			01/24/1997

FOREIGN PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB-CLASS	TRANSLATION
	AL2	EP 0780858 A1	06/25/1997	Europe			Yes No
	AM2	EP 0869519 A1	10/07/1998	Europe			Yes No
	AN2	EP 0887879 A1	06/19/1998	Europe			Yes No
	AO2	EP 887879 A1	12/30/1998	Europe			Yes No
	AP2	FR 2572546 A1	5/2/1986	France			Yes No

OTHER (Including Author, Title, Date, Pertinent Pages, etc.)

AR	2	Ezekiel JJ Kruglick and Kristofer SJ Pister, "Project Overview: Micro-Relays", Tech. Digital Solid-State Sensor and Actuator Workshop, 1998, Hilton Head 98 and 19 th International Conference on Electric Contact Phenomena, Nuremberg, Germany, Sept. 1998 (Downloaded from Internet Source: http://www-bsac.eecs.berkeley.edu/Kruglick/relays/relays.html , on July 12, 1999) 2 pgs.
AS	2	Ezekiel J.J. Kruglick and Kristofer S.J. Pister, "Bistable MEMS Relays and Contact Characterization", Tech. Digital Solid-State Sensor and Actuator Workshop, Hilton Head, 1988 and 19 th International Conference on Electric Contact Phenomena, Nuremberg, Germany, Sept. 1998, 5 pgs.
AT	2	Laure K. Lagorce and Oliver Brand, "Magnetic Microactuators Based on Polymer Magnets", March 1999, IEEE Journal of Microelectromechanical Systems, IEEE, Vol. 8., No. 1., March 1999, 8 pages.

EXAMINER

DATE CONSIDERED

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to Applicant.

FORM PTO-1449

INFORMATION DISCLOSURE STATEMENT

ATTY. DOCKET NO.

2040.0440000

APPLICATION NO.

10/684,587

FIRST NAMED INVENTOR

Jun Shen

FILING DATE

October 15, 2003

ART UNIT

2832

U.S. PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUB-CLASS	FILING DATE
	AA3	6,078,016	06/20/2000	Yoshikawa et al.			
	AB3	6,084,281	07/04/2000	Fullin et al.			
	AC3	6,094,293	07/25/2000	Yokoyama et al.			
	AD3	6,115,231	09/05/2000	Shirakawa			
	AE3	6,124,650	09/26/2000	Bishop et al.			
	AF3	6,143,997	11/07/2000	Feng et al.			
	AG3	6,160,230	12/12/2000	McMillen et al.			
	AH3	6,094,116	07/25/2000	Tai et al.			
	AI3						
	AJ3						
	AK3						

FOREIGN PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB-CLASS	TRANSLATION
	AL3	JP 4-275519	10/1/1992	Japan			Yes No
	AM3	JP 6-251684	9/9/1994	Japan			Yes No
	AN3	JP 54-161952	12/22/1979	Japan			Yes No
	AO3	WO 97/39468	10/23/1997	PCT			Yes No
	AP3	WO 98/34269	8/6/1998	PCT			Yes No

OTHER (Including Author, Title, Date, Pertinent Pages, etc.)

	AR	3	"P10D Electricity & Magnetism Lecture 14", Internet Source: http://scitec.uwhicill.edu.bb/cmp/online/P10D/Lecture14/lect14.htm , January 3, 2000, pp.1-5.
	AS	3	"Ultraminiature Magnetic Latching to 5-relays SPDT DC TO C Band", Series RF 341, product information from Teledyne Relays, 1998.
	AT	3	M. Ruan et al., "Latching Microelectromagnetic Relays", Sensors and Actuators A 91 (July 15, 2001), Copyright 2001 Elsevier Science B.V., pages 346-350.

EXAMINER

DATE CONSIDERED

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to Applicant.

FORM PTO-1449 INFORMATION DISCLOSURE STATEMENT	ATTY. DOCKET NO. 2040.0440000	APPLICATION NO. 10/684,587
	FIRST NAMED INVENTOR Jun Shen	
	FILING DATE October 15, 2003	ART UNIT 2832

U.S. PATENT DOCUMENTS							
EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUB-CLASS	FILING DATE
	AA4						
	AB4						
	AC4						
	AD4						
	AE4						
	AF4						
	AG4						
	AH4						
	AI4						
	AJ4						
	AK4						

FOREIGN PATENT DOCUMENTS							
EXAMINER INITIAL		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB-CLASS	TRANSLATION
	AL4	WO 9927548	6/3/1999	PCT			Yes No
	AM4						Yes No
	AN4						Yes No
	AO4						Yes No
	AP4						Yes No

OTHER (Including Author, Title, Date, Pertinent Pages, etc.)

	AR	4	Xi-Qing Sun, K.R. Farmer, W.N. Carr, " A Bistable Microrelay Based on Two-Segment Multimorph Cantilever Actuators", 11 th Annual Workshop on Micro Electrical Mechanical Systems, Heidelberg, Germany, IEEE, January 25-29, 1998, pp. 154-159.
	AS	4	William P. Taylor and Mark G. Allen, "Integrated Magnetic Microrelays: Normally Open, Normally Closed, and Multi-Pole Devices", 1997 International Conference on Solid-State Sensors and Actuators, IEEE, June 16-19, 1997, pp. 1149-1152.
	AT	4	William P. Taylor, Oliver Brand, and Mark G. Allen. "Fully Integrated Magnetically Actuated Micromachined Relays", Journal of Microelectromechanical Systems, IEEE, Vol. 7, No. 2, June 1998, pp.181-191.

EXAMINER	DATE CONSIDERED
----------	-----------------

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to Applicant.

FORM PTO-1449

INFORMATION DISCLOSURE STATEMENT

ATTY. DOCKET NO.

2040.0440000

APPLICATION NO.

10/684,587

FIRST NAMED INVENTOR

Jun Shen

FILING DATE

October 15, 2003

ART UNIT

2832

U.S. PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUB-CLASS	FILING DATE
	AA5						
	AB5						
	AC5						
	AD5						
	AE5						
	AF5						
	AG5						
	AH5						
	AI5						
	AJ5						
	AK5						

FOREIGN PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB-CLASS	TRANSLATION
	AL5						Yes No
	AM5						Yes No
	AN5						Yes No
	AO5						Yes No
	AP5						Yes No

OTHER (Including Author, Title, Date, Pertinent Pages, etc.)

	AR	<u>5</u>	Tilmans, et al., "A Fully-Packaged Electromagnetic Microrelay", Proc. MEMS '99, Orlando, FL, January 17-21, 1999, copyright IEEE 1999, pp. 25-30.
	AS	<u>5</u>	William Trimmer, "The Scaling of Micromechanical Devices", Internet Source: http://home.earthlink.net/~trimmerw/mems/scale.html on January 3, 2000 (adapted from article "Microrobots and Micromechanical Systems by W.S.N. Trimmer, Sensors and Actuators, Vol. 19, No. 3, September 1989, pp. 267-287, and other sources)
	AT	<u>5</u>	John A. Wright and Yu-Chong Tai, "Micro-Miniature Electromagnetic Switches Fabricated Using MEMS Technology", Proceedings: 46 th Annual International Relay Conference: NARM '98, April 1998, pages 13-1 to 13-4.

EXAMINER

DATE CONSIDERED

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to Applicant.

FORM PTO-1449

INFORMATION DISCLOSURE STATEMENTATTY. DOCKET NO.
2040.0440000APPLICATION NO.
10/684,587FIRST NAMED INVENTOR
Jun ShenFILING DATE
October 15, 2003ART UNIT
2832**U.S. PATENT DOCUMENTS**

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUB-CLASS	FILING DATE
	AA6						
	AB6						
	AC6						
	AD6						
	AE6						
	AF6						
	AG6						
	AH6						
	AI6						
	AJ6						
	AK6						

FOREIGN PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB-CLASS	TRANSLATION
	AL6						Yes No
	AM6						Yes No
	AN6						Yes No
	AO6						Yes No
	AP6						Yes No

OTHER (Including Author, Title, Date, Pertinent Pages, etc.)

	AR	<u>6</u>	John A. Wright, Yu-Chong Tai and Gerald Lilienthal, "A Magnetostatic MEMS Switch for DC Brushless Motor Commutation", Proceedings Solid State Sensor and Actuator Workshop, Hilton Head, 1998, June 1998, pages 304-307.
	AS	<u>6</u>	John A. Wright, Yu-Chong Tai, and Shih-Chia Chang, "A Large-Force, Fully-Integrated MEMS Magnetic Actuator", Transducers '97, 1997 International Conference on Solid State Sensors and Actuators, Chicago, June 16-19, 1997.
	AT	<u>6</u>	Ann, Chong H. & Allen, Mark G., "A Fully Integrated Micromagnetic Actuator With A Multilevel Meander Magnetic Core, 1992 IEEE, Solid-State Sensor and Actuator Workshop, Technical Digest, Hilton Head Island, South Carolina, June 22-25, 1992, Technical Digest, pp. 14-17.

EXAMINER

DATE CONSIDERED

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to Applicant.

FORM PTO-1449

INFORMATION DISCLOSURE STATEMENT

ATTY. DOCKET NO.

2040.0440000

APPLICATION NO.

10/684,587

FIRST NAMED INVENTOR

Jun Shen

FILING DATE

October 15, 2003

ART UNIT

2832

U.S. PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUB-CLASS	FILING DATE
	AA7						
	AB7						
	AC7						
	AD7						
	AE7						
	AF7						
	AG7						
	AH7						
	AI7						
	AJ7						
	AK7						

FOREIGN PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB-CLASS	TRANSLATION
	AL7						Yes No
	AM7						Yes No
	AN7						Yes No
	AO7						Yes No
	AP7						Yes No

OTHER (Including Author, Title, Date, Pertinent Pages, etc.)

	AR	<u>7</u>	English-Language Abstract of DE 10031569, published February 1, 2001, 1 page.
	AS	<u>7</u>	English-Language Abstract of DE 19820821, published December 16, 1999, 1 page.
	AT	<u>7</u>	English-Language Abstract of EP 0780858, published June 25, 1997, 1 page.

EXAMINER

DATE CONSIDERED

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to Applicant.

FORM PTO-1449 INFORMATION DISCLOSURE STATEMENT	ATTY. DOCKET NO. 2040.0440000	APPLICATION NO. 10/684,587
	FIRST NAMED INVENTOR Jun Shen	
	FILING DATE October 15, 2003	ART UNIT 2832

U.S. PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUB-CLASS	FILING DATE
	AA8						
	AB8						
	AC8						
	AD8						
	AE8						
	AF8						
	AG8						
	AH8						
	AI8						
	AJ8						
	AK8						

FOREIGN PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB-CLASS	TRANSLATION
	AL8						Yes No
	AM8						Yes No
	AN8						Yes No
	AO8						Yes No
	AP8						Yes No

OTHER (Including Author, Title, Date, Pertinent Pages, etc.)

	AR	8	English-Language Abstract of EP 0869519, published October 7, 1998, 1 page.
	AS	8	English-Language Abstract of FR 2572546, published May 2, 1986, 1 page.
	AT	8	English-Language Abstract of JP 4275519, published October 1, 1992, 1 page.

EXAMINER	DATE CONSIDERED
----------	-----------------

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to Applicant.

FORM PTO-1449

INFORMATION DISCLOSURE STATEMENT

ATTY. DOCKET NO.

2040.0440000

APPLICATION NO.

10/684,587

FIRST NAMED INVENTOR

Jun Shen

FILING DATE

October 15, 2003

ART UNIT

2832

U.S. PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUB-CLASS	FILING DATE
	AA9						
	AB9						
	AC9						
	AD9						
	AE9						
	AF9						
	AG9						
	AH9						
	AI9						
	AJ9						
	AK9						

FOREIGN PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB-CLASS	TRANSLATION
	AL9						Yes No
	AM9						Yes No
	AN9						Yes No
	AO9						Yes No
	AP9						Yes No

OTHER (Including Author, Title, Date, Pertinent Pages, etc.)

AR	2	English-Language Abstract of EP 0869519, published October 7, 1998, 1 page.
AS	2	English-Language Abstract of FR 2572546, published May 2, 1986, 1 page.
AT	2	English-Language Abstract of JP 4275519, published October 1, 1992, 1 page.

EXAMINER

DATE CONSIDERED

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to Applicant.